

DEPARTMENT OF TRANSPORTATION

DIVISION OF ENGINEERING SERVICES

Office of Structural Materials

Quality Assurance and Source Inspection



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Contract #: 04-0120F4Cty: SF/ALA Rte: 80 PM: 13.2/13.9File #: 1.28**WELDING INSPECTION REPORT****Resident Engineer:** Casey, William**Address:** 333 Burma Road**City:** Oakland, CA 94607**Report No:** WIR-027068**Date Inspected:** 20-Jan-2012**Project Name:** SAS Superstructure**OSM Arrival Time:** 700**Prime Contractor:** American Bridge/Fluor Enterprises, a JV**OSM Departure Time:** 1530**Contractor:** American Bridge/Fluor Enterprises, a JV**Location:** Job Site**CWI Name:** Salvador Merino**CWI Present:** Yes No**Inspected CWI report:** Yes No N/A**Rod Oven in Use:** Yes No N/A**Electrode to specification:** Yes No N/A**Weld Procedures Followed:** Yes No N/A**Qualified Welders:** Yes No N/A**Verified Joint Fit-up:** Yes No N/A**Approved Drawings:** Yes No N/A**Approved WPS:** Yes No N/A**Delayed / Cancelled:** Yes No N/A**Bridge No:** 34-0006**Component:** OBG Components**Summary of Items Observed:**

On this date, Quality Assurance Inspector (QAI) Kenneth Riley was present at the San Francisco Oakland bay Bridge job site at Yerba Buena Island to observe erection and welding activities for the San Francisco Oakland Bay Bridge (SFOBB) project. This Quality Assurance Inspector (QAI) observed the following work performed by American Bridge/Fluor Enterprises (AB/F) personnel at the locations noted below:

- A) Lifting Lug Holes Repairs
- B) Field Splice 12W-13W
- C) Submittal Reviews

A). Lifting Lug Holes

The QAI observed that welders assigned to the Lifting Lug holes were not onsite today due to inclement weather conditions.

B). Field Splice 12W-13W

The QAI observed QC inspector Jessie Cayabyab had performed Ultrasonic Testing (UT) and discovered rejectable indications as outlined in AWS welding code D1.5. The dimensions discovered by QC were; location #1- Y-2030mm, depth-22 and length-50mm. Location #2 Y-5900mm, depth-18mm and length-50mm. Both

WELDING INSPECTION REPORT

(Continued Page 2 of 3)

locations require a Critical Weld Repair (CWR) to be submitted to the Engineer for approval.

During a random observation it was noted that welder Fred Kaddu was performing the Shielded Metal Arc Welding (SMAW) using electrode E7018 under Welding Procedure Specification (WPS) ABF-WPS-D15-1001R for the Complete Joint Penetration weld repair in the flat (1G) position. The welder was observed at the 12W-13W-D1 (bottom plate) location on the interior of the OBG section performing these repairs. The locations were Y-760mm, depth-16mm, length-120mm and width-20mm. The electrode used during the repair was 3.2mm diameter with welding amps verified as 135. The welder was placing the intermediate weld passes for this location and using a power grinder and power wire wheel for the interpass cleaning. The QC inspector for this location was Salvador Merino and was observed verifying and documenting the welding parameters for this location, along with overseeing the welding operations. At the time of the observations no issues were noted by the QAI.

E). Submittal Review

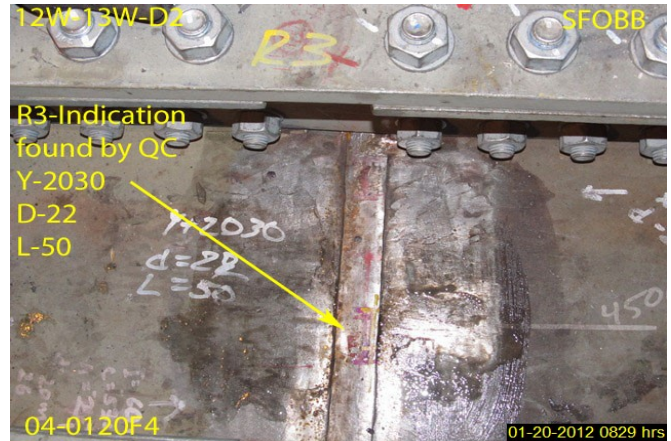
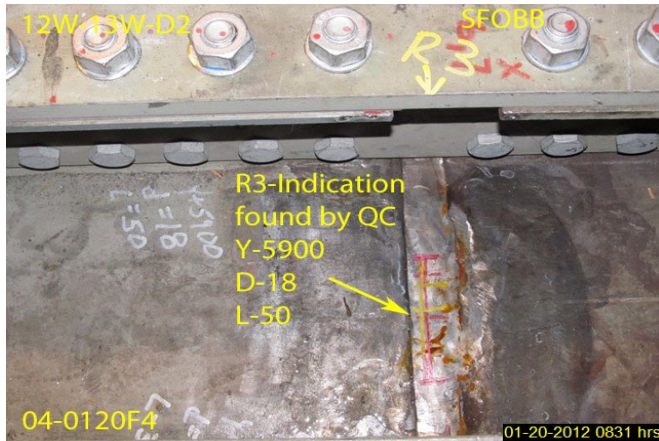
This QAI performed submittal reviews for weekly welding reports from Watson Bowman Acme under submittal numbers ABF-SUB-002550 Rev 22, 23 and 24. These reviews include, the Weekly Welding Report for the each week and contained Inspection Checklist, Weld Maps and KTA Daily Checklists. The submitted documents, as noted above, were reviewed to determine compliance with project specifications and a TL-20 was documented and submitted for review.

QA Observation and Verification Summary

The QA inspector observed the QC activities and the welding utilizing the WPS's as noted above, which appeared to be posted at the weld station. The welding parameters and surface temperatures were verified by the QC inspectors utilizing a Fluke 337 clamp meter for the electrical welding parameters and a Fluke 63 IR Thermometer for verifying the preheat and interpass temperatures. The consumables utilized for the welding process stated appeared to comply with the AWS Specification and AWS Classification. The QC inspection, testing and welding performed on this shift appeared to be in general compliance with the contract documents. At random intervals, the QAI verified the QC inspection, testing, welding parameters and the surface temperatures utilizing various inspection equipment and gages which included a Fluke 337 Clamp Meter and Tempilstik Temperature indicators. Unless noted otherwise, all work observed on this date appeared to be in general compliance with the contract documents at the time of observations.

WELDING INSPECTION REPORT

(Continued Page 3 of 3)



Summary of Conversations:

Basic conservation, fundamental to completion of the tasks at hand, occurred between this QAI and ABF QC personnel.

Comments

This report is for the purpose of determining conformance with the contract documents and is not for the purpose of making repair or fit for purpose recommendations. Should you require recommendations concerning repairs or remedial efforts please contact Nina Choy (510) 385-5910, who represents the Office of Structural Materials for your project.

Inspected By:	Riley, Ken	Quality Assurance Inspector
Reviewed By:	Levell, Bill	QA Reviewer
